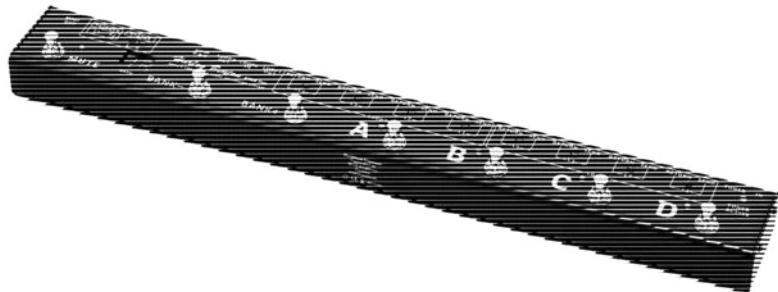


Harley Benton



FXL8 Pro
effects looper

Musikhaus Thomann e.K.

Treppendorf 30

96138 Burgebrach

Germany

Telephone: +49 (0) 9546 9223-0

E-mail: info@thomann.de

Internet: www.thomann.de

Table of contents

1	General information	4
1.1	Further information	5
1.2	Notational conventions	6
1.3	Symbols and signal words	8
2	Safety instructions	9
3	Features	12
4	Installation	13
5	Connections and operating elements	20
6	Operating	27
7	Technical specifications	39
8	Plug and connection assignment	40
9	Protecting the environment	42

1 General information

This manual contains important instructions for the safe operation of the unit. Read and follow the safety instructions and all other instructions. Keep the manual for future reference. Make sure that it is available to all those using the device. If you sell the unit please make sure that the buyer also receives this manual.

Our products are subject to a process of continuous development. Thus, they are subject to change.

1.1 Further information

On our website (www.thomann.de) you will find lots of further information and details on the following points:

Download	This manual is also available as PDF file for you to download.
Keyword search	Use the search function in the electronic version to find the topics of interest for you quickly.
Online guides	Our online guides provide detailed information on technical basics and terms.
Personal consultation	For personal consultation please contact our technical hotline.
Service	If you have any problems with the device the customer service will gladly assist you.

1.2 Notational conventions

This manual uses the following notational conventions:

Letterings

The letterings for connectors and controls are marked by square brackets and italics.

Examples: *[VOLUME]* control, *[Mono]* button.

Displays

Texts and values displayed on the device are marked by quotation marks and italics.

Examples: '24ch', 'OFF'.

Instructions

The individual steps of an instruction are numbered consecutively. The result of a step is indented and highlighted by an arrow.

Example:

- 1.**  Switch on the device.
- 2.**  Press *[Auto]*.
⇒ Automatic operation is started.
- 3.**  Switch off the device.

Text input

Text inputs that are carried out on the device are indicated by typewriter font.

Example: 2323

Cross-references

References to other locations in this manual are identified by an arrow and the specified page number. In the electronic version of the manual, you can click the cross-reference to jump to the specified location.

Example: See  'Cross-references' on page 7.

1.3 Symbols and signal words

In this section you will find an overview of the meaning of symbols and signal words that are used in this manual.

Signal word	Meaning
DANGER!	This combination of symbol and signal word indicates an immediate dangerous situation that will result in death or serious injury if it is not avoided.
NOTICE!	This combination of symbol and signal word indicates a possible dangerous situation that can result in material and environmental damage if it is not avoided.
Warning signs	Type of danger
	Warning – danger zone.

2 Safety instructions

Intended use

This device is intended to be used to integrate multiple effects devices into the signal path between instrument and amplifier. Different configurations can be stored. Use the device only as described in this user manual. Any other use or use under other operating conditions is considered to be improper and may result in personal injury or property damage. No liability will be assumed for damages resulting from improper use.

This device may be used only by persons with sufficient physical, sensorial, and intellectual abilities and having corresponding knowledge and experience. Other persons may use this device only if they are supervised or instructed by a person who is responsible for their safety.

Safety



DANGER!

Danger for children

Ensure that plastic bags, packaging, etc. are disposed of properly and are not within reach of babies and young children. Choking hazard!

Ensure that children do not detach any small parts (e.g. knobs or the like) from the unit. They could swallow the pieces and choke!

Never let children unattended use electrical devices.



NOTICE!

Operating conditions

This device has been designed for indoor use only. To prevent damage, never expose the device to any liquid or moisture. Avoid direct sunlight, heavy dirt, and strong vibrations.



NOTICE!

External power supply

The device is powered by an external power supply. Before connecting the external power supply, ensure that the input voltage (AC outlet) matches the voltage rating of the device and that the AC outlet is protected by a residual current circuit breaker. Failure to do so could result in damage to the device and possibly the user.

Unplug the external power supply before electrical storms occur and when the device is unused for long periods of time to reduce the risk of electric shock or fire.

3 Features

The unit is ideal for use and switching of up to eight effects devices in your guitar setup. It is characterized by:

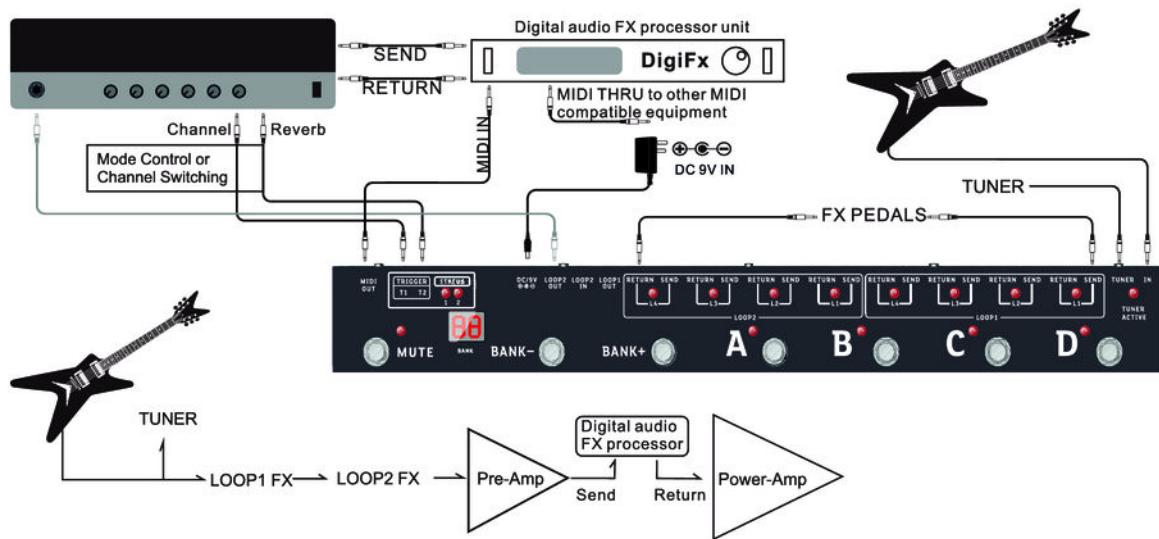
- two separately or jointly usable signal loops for up to four effects units
- premium footswitch with True Bypass function
- Option to store settings for loops in eight memory banks
- two programmable trigger (switching outputs) with which other audio devices can be controlled
- a MIDI output for triggering MIDI compatible devices
- robust metal housing

4 Installation

Unpack and carefully check that there is no transportation damage before using the unit. Keep the equipment packaging. To fully protect the device against vibration, dust and moisture during transportation or storage use the original packaging or your own packaging material suitable for transport or storage, respectively.

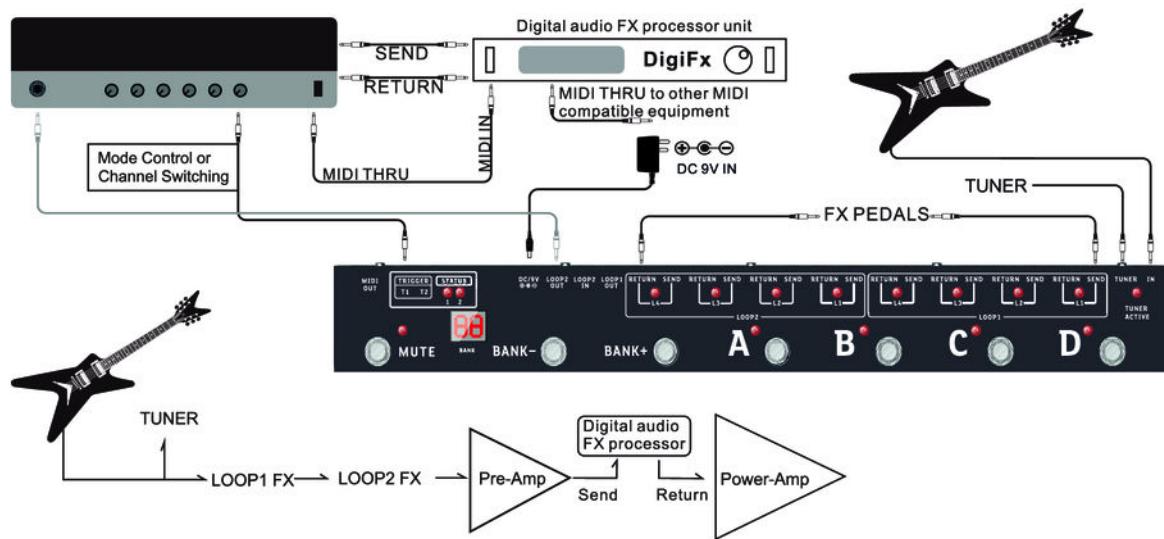
Establish all connections as long as the unit is switched off. Use the shortest possible high-quality cables for all connections.

8-channel mode with usage of the MIDI output



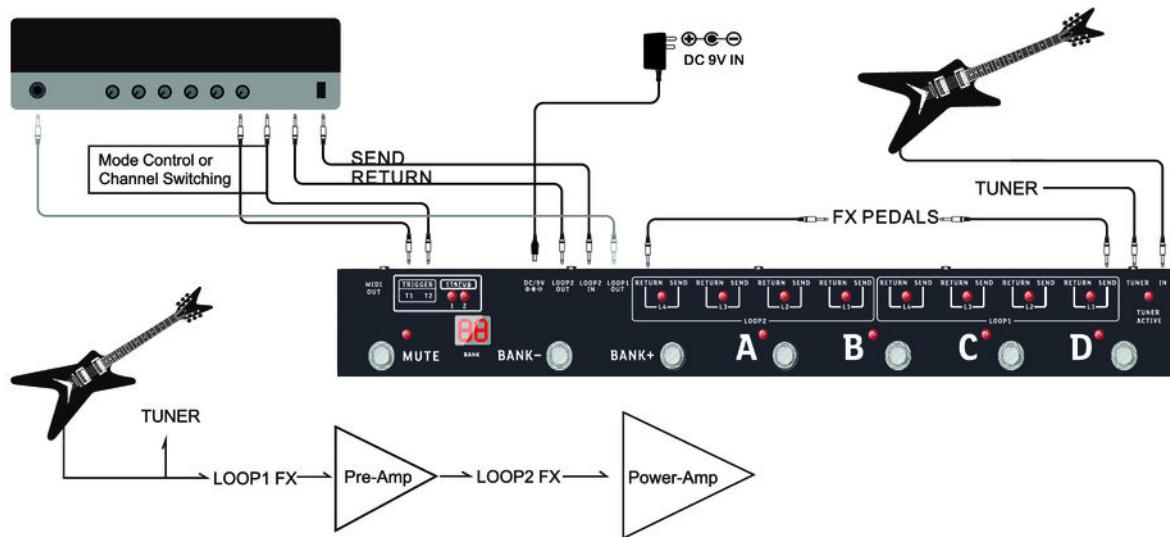
If your instrument is connected to the input *[IN]* and your amplifier to the output *[LOOP2 OUT]*, eight effects processors can be looped into the signal path. In this example, the MIDI output controls an audio processor that is arranged behind the preamp in the signal path.

8-channel mode without usage of the MIDI output



If your instrument is connected to the input *[IN]* and your amplifier to the output *[LOOP2 OUT]*, eight effects processors can be looped into the signal path. In this example, an audio processor arranged behind the preamp in the signal path is controlled by a third device.

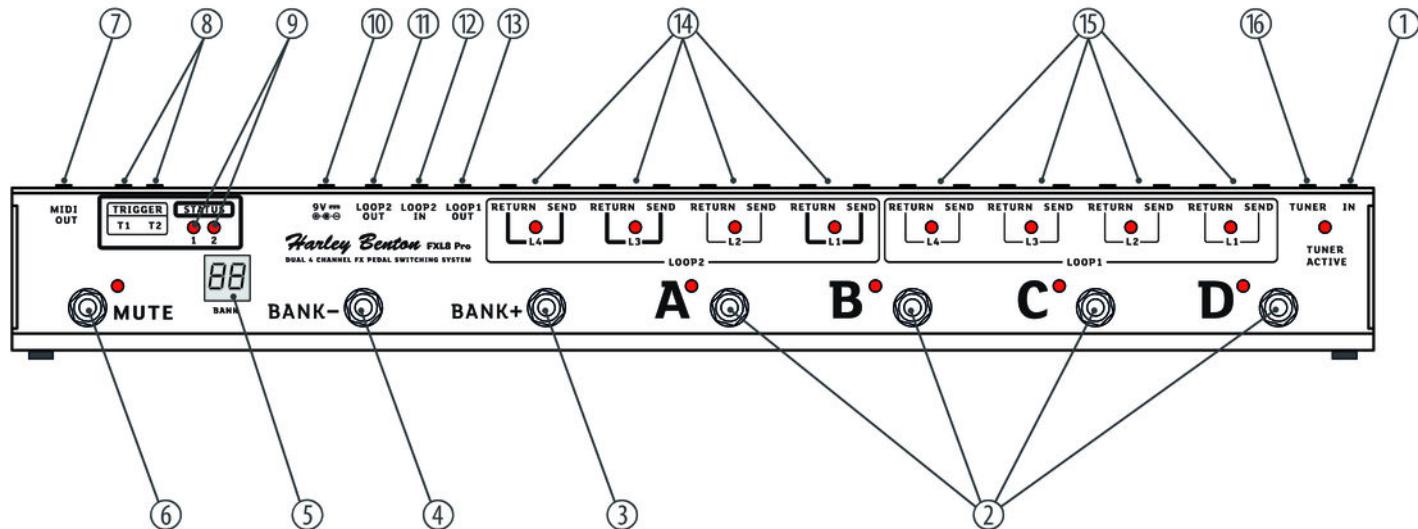
2x4-channel mode



Connect your instrument to the input *[IN]* of the device and the effects input of your amplifier to output *[LOOP1 OUT]*. Connect the effects output of your amplifier to the input *[LOOP2 IN]* and the power stage of your amp to the output *[LOOP2 OUT]*. Connect the inputs, that can be used to control the effects on your amplifier to the programmable trigger outputs *[TRIGGER T1]*, *[TRIGGER T2]*. In this setup, you can use and programme built-in effects of your amp in the same way as effects pedals.

5 Connections and operating elements

Top side

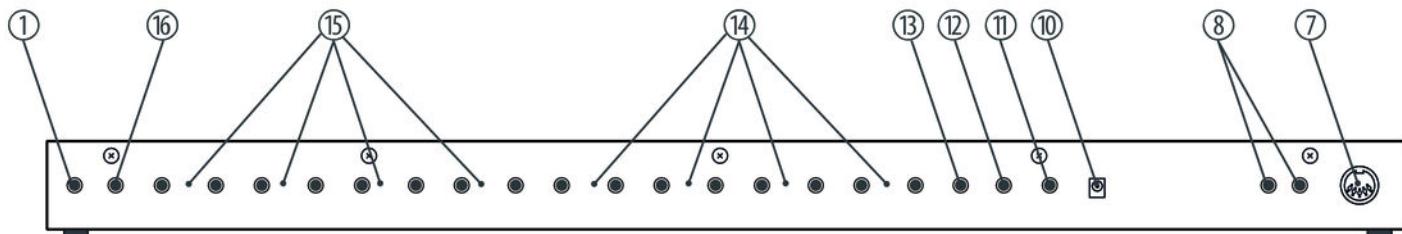


1	<i>[IN]</i> Input socket. Connect here your instrument via a shielded cable with 1/4" phone plug.
2	<i>[A], [B], [C], [D]</i> The 'True Bypass" foot switches <i>[A]</i> to <i>[D]</i> turn the selected effects groups on or off. The corresponding control LED of the activated effects groups light up.
3	<i>[BANK +]</i> Footswitch to select the next higher memory bank.
4	<i>[BANK -]</i> Footswitch to select the next lower memory bank.
5	<i>[BANK]</i> display In normal operation, the device displays here the number of the currently active memory bank. In programming mode, parameters and the set values are displayed.

6	<i>[MUTE]</i>
	Footswitch for operating mode selection. Press the foot switch successively to toggle between the operating modes 'Mute' (muted), 'Tune' (tuning), 'Edit' (programming mode) and 'Normal'. The associated indicator LED is lit as long as the audio signal is not switched to the output.
7	<i>[MIDI OUT]</i>
	Output for controlling a connected audio device with MIDI interface.
8	<i>[TRIGGER T1], [TRIGGER T2]</i>
	Output jacks for two programmable switching outputs.
9	<i>[STATUS 1], [STATUS 2]</i>
	Control LEDs for the two switching outputs. The LED lights up when the switching output is active.
10	<i>[9V]</i>
	Connection for the external voltage supply with 9 V DC. When connecting, observe the correct polarity - the inner pole must be negative.
11	<i>[LOOP2 OUT]</i>
	Output socket, depending on the setting for the total output or the loop output (signal loop) 2. Use a standard instrument cable (1/4" plug) to connect the input of your amplifier here.

12	<i>[LOOP2 IN]</i> Loop input (signal loop) 2.
13	<i>[LOOP1 OUT]</i> Loop output (signal loop) 1.
14	<i>[LOOP2 RETURN / SEND]</i> Use these connectors to include up to four external effects devices into loop (signal loop) 2. Use shielded cables (1/4" plug) to connect each of the SEND sockets to the input of the effects unit and its output to the RETURN socket. A control LED is assigned to each channel. It lights up when the channel is active.
15	<i>[LOOP1 RETURN / SEND]</i> Use these connectors to include up to four external effects devices into loop (signal loop) 1. Use shielded cables (1/4" plug) to connect each of the SEND sockets to the input of the effects unit and its output to the RETURN socket. A control LED is assigned to each channel. It lights up when the channel is active.
16	<i>[TUNER]</i> External tuner output. The assigned indicator LED lights up when the output is active.

Rear panel



1	<i>[IN]</i> Input socket. Connect here your instrument via a shielded cable with 1/4" phone plug.
7	<i>[MIDI OUT]</i> Output for controlling a connected audio device with MIDI interface.
8	<i>[TRIGGER T1], [TRIGGER T2]</i> Output jacks for two programmable switching outputs.
10	<i>[9V]</i> Connection for the external voltage supply with 9 V DC. When connecting, observe the correct polarity - the inner pole must be negative.
11	<i>[LOOP2 OUT]</i> Output socket, depending on the setting for the total output or the loop output (signal loop) 2. Use a standard instrument cable (1/4" plug) to connect the input of your amplifier here.
12	<i>[LOOP2 IN]</i> Loop input (signal loop) 2.

13	<i>[LOOP1 OUT]</i> Loop output (signal loop) 1.
14	<i>[LOOP2 RETURN / SEND]</i> Use these connectors to include up to four external effects devices into loop (signal loop) 2. Use shielded cables (1/4" plug) to connect each of the SEND sockets to the input of the effects unit and its output to the RETURN socket. A control LED is assigned to each channel. It lights up when the channel is active.
15	<i>[LOOP1 RETURN / SEND]</i> Use these connectors to include up to four external effects devices into loop (signal loop) 1. Use shielded cables (1/4" plug) to connect each of the SEND sockets to the input of the effects unit and its output to the RETURN socket. A control LED is assigned to each channel. It lights up when the channel is active.
16	<i>[TUNER]</i> External tuner output. The assigned indicator LED lights up when the output is active.

6 Operating

Control for tuner and mute

1. When the device is not in edit mode, press **[MUTE]**. The unit activates the output **[TUNER OUT]** to which you can connect a tuner to tune your instrument.
2. If you press **[MUTE]** again the outputs **[LOOP1 OUT]** and **[LOOP2 OUT]** are muted. You can tune your instrument without hearing the tones coming from the amp.
3. If you press **[MUTE]** again the outputs **[LOOP1 OUT]** and **[LOOP2 OUT]** become active again and the **[TUNER OUT]** is turned off.

Selecting a memory bank

1. When the device is not in edit mode, press **[BANK +]** or **[BANK -]** to change the memory bank.
2. The selected setting will not take effect immediately. You have to press **[A]**, **[B]**, **[C]** or **[D]** to make the settings work. During the changeover, the display shows the number of the memory bank and 'A', 'B', 'C' or 'D'.

Using the edit function

When the device is not in edit mode and the bypass is not active press **[MUTE]** for more than one second to enter the edit mode. The display then shows 'EH', thus indicating that the edit mode was entered. Press **[BANK +]** or **[BANK -]** to select the item to be edited. The following assignment applies:

Display	Editing of
'EH'	4 effects channels of Loop 2
'EL'	4 effects channels of Loop 1
'ET'	Action of Trigger 1 and 2 with active patch
'EB'	Action of Trigger 1 and 2 with non-active patch
'EM'	Operating mode of Trigger 1 and 2: <ul style="list-style-type: none">■ M: Momentary contact (Mom)■ L: Permanent contact (Latch) Refer to the manual of the device to be controlled by the trigger signals.

Display	Editing of
'EP'	<p>Polarity of Trigger 1 and 2:</p> <ul style="list-style-type: none"><input type="checkbox"/> ON<input type="checkbox"/> OFF <p>Refer to the manual of the device to be controlled by the trigger signals.</p>
'MA'	<p>MIDI setting during patch status transition from 'non-active' to 'active'.</p> <p>Refer to the manual of the device to be controlled by the MIDI interface.</p>
'MB'	<p>MIDI setting during patch status transition from 'active' to 'non-active'.</p> <p>Refer to the manual of the device to be controlled by the MIDI interface.</p>

Editing a loop combination

1. ➤ When the device is in edit mode, press **[BANK +]** or **[BANK -]** until the display shows 'EH' (for Loop 2) or 'EL' (for Loop 1) (see  'Using the edit function' on page 28).
Since the operation is the same for both loops, only 'EL' (for Loop 1) is shown in this example.
2. ➤ To turn the channels on and off, that belong to the selected loop just press **[A]**, **[B]**, **[C]** or **[D]** according to:
 - A: L4 (effects channel 4)
 - B: L3 (effects channel 3)
 - C: L2 (effects channel 2)
 - D: L1 (effects channel 1)By pressing the respective footswitch the corresponding effect channel is turned on or off.
3. ➤ When all settings are completed, press **[MUTE]** longer than one second to save the settings. To exit the edit mode without saving, press **[MUTE]** only briefly.

Setting the Triggers

To set the behaviour of the trigger, you should successively set polarity, operating mode, behaviour on active patch and behaviour on non-active patch. Experienced users can also directly select the relevant setting.

Setting the Trigger polarity

- 1.** When the device is in edit mode, press **[BANK +]** or **[BANK -]** until the display shows 'EP'.
- 2.** Now you can set the polarity of T1 and T2. The assigned two indicator LEDs show the selected polarity. Press **[A]** (for T1) or **[B]** (for T2). If you want, for example, to set the polarity of T1, press **[A]** and observe the control LED **[T1]**.
- 3.** When the polarity settings are complete, you can use **[BANK +]** or **[BANK -]** to skip to another subitem of the menu.

When all settings are completed, press **[MUTE]** longer than one second to save the settings. To exit the edit mode without saving, press **[MUTE]** only briefly.

Setting the Trigger operating mode

- 1.** When the device is in edit mode, press **[BANK +]** or **[BANK -]** until the display shows 'EM'.
- 2.** Now you can set the operating mode of T1 and T2. The assigned two indicator LEDs show the selected operating mode. Press **[A]** (for T1) or **[B]** (for T2). If you want, for example, to set the operating mode of T1, press **[A]** and observe the control LED **[T1]**. If the LED is lit, that means momentary contact (Mom). If the LED is not lit, that means permanent contact (Latch).

3. ➤ When the operating mode settings are complete, you can use **[BANK +]** or **[BANK -]** to skip to another subitem of the menu.

When all settings are completed, press **[MUTE]** longer than one second to save the settings. To exit the edit mode without saving, press **[MUTE]** only briefly.

Setting the action of Trigger 1 and 2 with active patch

1. ➤ When the device is in edit mode, press **[BANK +]** or **[BANK -]** until the display shows 'ET'.

2. ➤ Now you can set how Trigger 1 and Trigger 2 work with activated patch (non-bypass) work. Here, 'activated patch' means that the effect channels assigned in a loop are switched on. The assigned two indicator LEDs show the selected action. Press **[A]** (for T1) or **[B]** (for T2). If you want, for example, to set the action of T1, press **[A]** and observe the control LED **[T1]**. If the LED is lit, that means that the device is active. If the LED is not lit, that means that the device is not active.

3. ➤ When the trigger actions on active patch settings are complete, you can use **[BANK +]** or **[BANK -]** to skip to another subitem of the menu.

When all settings are completed, press **[MUTE]** longer than one second to save the settings. To exit the edit mode without saving, press **[MUTE]** only briefly.

Setting the action of Trigger 1 and 2 on non-active patch

1. ➤ When the device is in edit mode, press **[BANK +]** or **[BANK -]** until the display shows 'EB'.

2. Now you can set how Trigger 1 and Trigger 2 work with non-activated patch (bypass) work. Here, 'non-activated patch' means that the effect channels assigned in a loop are switched off, resulting in a 'clean' signal path. Nevertheless, you can use the triggers to induce actions on another audio device, so for example, activate effects that are built into the amplifier.

The assigned two indicator LEDs show the selected action. Press *[A]* (for T1) or *[B]* (for T2). If you want, for example, to set the action of T1, press *[A]* and observe the control LED *[T1]*. If the LED is lit, that means that the device is active. If the LED is not lit, that means that the device is not active.

3. When the trigger actions on active patch settings are complete, you can use *[BANK +]* or *[BANK -]* to skip to another subitem of the menu.

When all settings are completed, press *[MUTE]* longer than one second to save the settings. To exit the edit mode without saving, press *[MUTE]* only briefly.

MIDI settings

The device can send to sets of MIDI data (for example MIDI CC+ or MIDI CC+CC). To use the MIDI functions, the following sequence must be followed:

Ex -> Ax -> Cx - Nx, where 'x' is 1 or 2, as in E1, A1, C1, N1 or E2, A2, C2, N2.

To set the MIDI functions enter the edit mode first. Press *[BANK +]* or *[BANK -]* until the display shows 'MA' or 'MB'. In the MA section is determined which MIDI data is sent in patch status transition from non-active (bypass) to active. In the MB section is determined which MIDI data is sent in patch status transition from active to non-active (bypass).

MIDI settings in MA section

When the display shows 'MA' you can press *[A]* or *[B]* to successively call up options E1, A1, C1, N1, E2, A2, C2 and N2. You can select the desired parameter for an option by pressing *[C]* or *[D]*. Press *[MUTE]* briefly to return to option selection.

The following table shows the setting options for E1, A1, C1 and N1, and thus for MIDI message 1. The settings for MIDI message 2 (E2, A2, C2 and N2) are analogously identical. Make sure when choosing the parameters that they do not cancel each other out. For example, if the values of A1 and A2 are chosen to be identical, E1 is set to 'PC' and E2 to 'OF', then the 'Program Change' is not performed because both times the same transmission channel is used.

Option	Possible parameters	
E1: Message type of MIDI message 1 (MIDI message 1 message type)		
	OF	Turns the built-in MIDI controller off, the device does not send MIDI data.
	PC	The device sends a 'Program Change' message.
	CC	The device sends a 'Control Change' message.
A1: Transmission channel of MIDI message 1 (MIDI message 1 transmit channel), available only if E1 is not equal to 'OF'.		
	01...16	Number of the transmission channel.
	If E1 is equal to 'OF' the display shows '—' and no value can be set.	
C1: Parameter 1 of MIDI message 1 (MIDI message 1 parameter 1), available only if E1 is not equal to 'OF'.		

Option	Possible parameters
	<p>01...2.8</p> <p>The displayed number represents the set value. For values from 100, the decimal point shifts. For example, value 128 is displayed as '2.8'.</p> <p>When E1 is equal to 'PC', the number set for C1 represents one of 128 possible tones.</p> <p>When E1 is equal to 'CC', the number set for C1 represents the number of a controller in your MIDI setup. A Program Change message is normally used to change the sound preset; a Control Change message is used to select parameters for an effect (delay time, modulation depth, etc.).</p> <p>Example 1: If you want to change the tone settings of an effects processor, you must first determine which MIDI channel the effects processor receives. Then set E1 to 'PC' (thus a 'Program Change' message is sent).</p> <p>Example 2: If you want to change the delay time of your effects processor you must first set the transmission channel to the value that the effects processor uses. Then set C1 to the correct MIDI controller number for your effects processor. Then you can use N1 to send the correct value. N1 is discussed in the next section.</p>

If E1 is equal to 'OF' the display shows '—' and no value can be set.

N1: Parameter 2 of MIDI message 1 (MIDI message 1 parameter 2), available only if E1 is equal to 'CC'.

Option	Possible parameters
	<p>01...2.8</p> <p>The displayed number represents the set value. For values from 100, the decimal point shifts. For example, value 128 is displayed as '2.8'.</p> <p>When E1 is equal to 'CC', the number set for N1 represents the value passed by a 'Control Change' message. A 'Control Change' message consists of a transmission channel, the controller number and the transmitted value. Such a message is normally used to change a parameter of an effect. Therefore, the value for C1 must match the value which is used by the controlled device. The used numbers of the transmission channels must match as well.</p> <p>Example 1: Controller 12 of your effects processor controls the delay effect, it receives control messages on MIDI channel 15 and can use values 1 to 128 to represent delay values between 0.02 s and 1 s. If you want to set the delay time to 1 s via MIDI connection, you have to set up the four options of MIDI message 1 as follows:</p> <ul style="list-style-type: none"> ■ E1: 'CC' ■ A1: 15 ■ C1: 12 ■ N1: 128
If E1 is not equal to 'CC' the display shows '--' and no value can be set.	

MIDI settings in MB section

Section MB's MIDI settings let you trigger actions on the connected MIDI devices if the effects channels assigned to a loop are turned off and the signal path is 'clean'.

When the display shows 'MB' you can press [A] or [B] to successively call up options E1, A1, C1, N1, E2, A2, C2 and N2. The setting options and their meanings are identical to the settings in the MA section.

When all settings are completed, press [MUTE] longer than one second to save the settings. To exit the edit mode without saving, press [MUTE] only briefly.

7 Technical specifications

Operating voltage supply	9 V ⎓ (inner pole = minus)
Current consumption	240 mA
Dimensions (L \times W \times H)	541 mm \times 67 mm \times 53 mm
Weight	1.68 kg

8 Plug and connection assignment

Introduction

This chapter will help you select the right cables and plugs to connect your valuable equipment in such a way that a perfect sound experience is ensured.

Please note these advices, because especially in 'Sound & Light' caution is indicated: Even if a plug fits into the socket, an incorrect connection may result in a destroyed power amp, a short circuit or 'just' in poor transmission quality!

Balanced and unbalanced transmission

Unbalanced transmission is mainly used in semi-professional environment and in hifi use. Instrument cables with two conductors (one core plus shielding) are typical representatives of the unbalanced transmission. One conductor is ground and shielding while the signal is transmitted through the core.

Unbalanced transmission is susceptible to electromagnetic interference, especially at low levels, such as microphone signals and when using long cables.

In a professional environment, therefore, the balanced transmission is preferred, because this enables an undisturbed transmission of signals over long distances. In addition to the conductors 'Ground' and 'Signal', in a balanced transmission a second core is added. This also transfers the signal, but phase-shifted by 180°.

Since the interference affects both cores equally, by subtracting the phase-shifted signals, the interfering signal is completely neutralized. The result is a pure signal without any noise interference.

1/4" TS phone plug (mono, unbalanced)



1	Signal
2	Ground, shielding

9 Protecting the environment

Disposal of the packaging material



For the transport and protective packaging, environmentally friendly materials have been chosen that can be supplied to normal recycling.

Ensure that plastic bags, packaging, etc. are properly disposed of.

Do not just dispose of these materials with your normal household waste, but make sure that they are collected for recycling. Please follow the notes and markings on the packaging.

Disposal of your old device



This product is subject to the European Waste Electrical and Electronic Equipment Directive (WEEE). Do not dispose with your normal household waste.

Dispose of this device through an approved waste disposal firm or through your local waste facility. When discarding the device, comply with the rules and regulations that apply in your country. If in doubt, consult your local waste disposal facility.

Musikhaus Thomann e.K. · Treppendorf 30 · 96138 Burgebrach · Germany · www.thomann.de